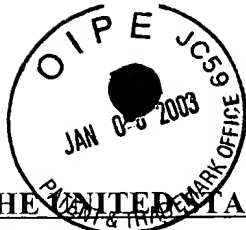


S/N 09/945,535



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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Kie Y. Ahn et al.

Examiner: David S. Blum

Serial No.: 09/945,535

Group Art Unit: 2813

Filed: August 30, 2001

Docket: 1303.026US1

Title: HIGHLY RELIABLE AMORPHOUS HIGH-K GATE OXIDE ZrO₂

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Commissioner for Patents
Washington, D.C. 20231

Applicant has reviewed the Office Action mailed on October 4, 2002. Please amend the above-identified patent application as follows.

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IN THE CLAIMS

Please substitute the claim set in the appendix entitled Clean Version of Pending Claims for the previously pending claim set. The substitute claim set is intended to reflect cancellation of claims 3, 11, 16, 24, 32, and 53, and amendment of previously pending claims 1, 9, 14, 22, 30, 51, 55, and 56. The specific amendments to individual claims are detailed in the following marked up set of claims.

1. (Amended) A method of forming a gate oxide on a transistor body region, comprising:
evaporation depositing a metal layer on the body region using [a substantially thermal process] electron beam evaporation, the metal being chosen from the group IVB elements of the periodic table; and
oxidizing the metal layer to form a metal oxide layer on the body region.
9. (Amended) A method of forming a gate oxide on a transistor body region, comprising:
evaporation depositing a metal layer on the body region using [a substantially thermal process] electron beam evaporation, the metal being chosen from the group IVB elements of the periodic table; and
oxidizing the metal layer using a krypton(Kr)/oxygen (O₂) mixed plasma process to form a metal oxide layer on the body region.